ABSTRACT OF THE DISCLOSURE

A syringe includes a body and a plunger movably disposed within the body. The plunger includes a wall having an inner surface and one or more inwardly projecting flanges disposed on the inner surface of the wall. Preferably, the inner surface of the wall defines a retaining shoulder formed along an axial plane thereof and the inwardly projecting flanges are radially spaced along the interior surface of the wall and extend in a longitudinal direction proximal to the retaining shoulder. The syringe may be used with an injector including a drive member. The drive member preferably includes at least one retaining member adapted to engage the retaining shoulder of the syringe plunger to allow the drive member to retract the plunger with the body of the syringe. Further, the drive member preferably includes one or more outwardly extending flange members adapted to be engaged by the inwardly projecting flanges of the syringe plungers. The outwardly extending flange members are operably linked to the at least one retaining member such that, when the syringe body is rotated and the inwardly projecting flanges on the plunger engage and move the outwardly extending flange members on the drive member, the at least one retaining member on the drive member is retracted and disengaged from the retaining shoulder of the syringe plunger.